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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,696	04/09/2004	Won-Kyu Bang	P57046	8730

7590 04/07/2006
Robert E. Bushnell
Suite 300
1522 K Street, N.W.
Washington, DC 20005-1202

EXAMINER

BROUSSARD, COREY M

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/820,696

Applicant(s)

BANG ET AL.

Examiner

Corey M. Broussard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/19/2006 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

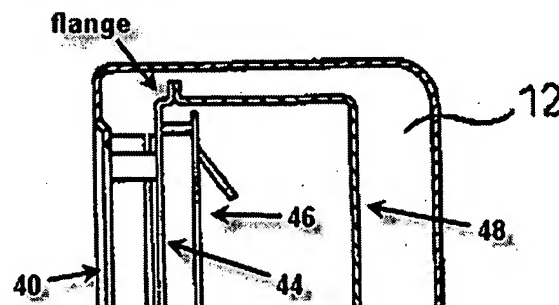
3. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "near" in claim 10 is a relative term which renders the claim indefinite. The term "near" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Without a standard defining the limits meant by "near", it is unclear how claim 10 further limits the scope of the parent claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichimura (US Pub 2002/0149906) in view of Matsuoka et al. (PN 6,104,451). With respect to claim 1, Ichimura teaches a display apparatus, comprising: a display panel (40); a chassis comprising a base (44), the base of the chassis supporting the display panel (see Fig. 2, 6, ¶ [0045]), the chassis further comprising a flange (the top edge of 44 has a flange, see portion of Fig. 2 submitted below) extending from an upper edge of the base as a single body and arranged along the upper edge of the base and adapted to prevent the base from bending, a printed circuit board (46) with parts mounted thereon, the printed circuit board being mounted on the base of the chassis and being adapted to drive the display panel (the display 40 is an output device for the computer comprising the motherboard 46); and a case (front cover 42 and back cover 50 make up a case) accommodating the display panel, the chassis, and the printed circuit board.



Ichimura lacks specific teaching of a hole perforating the flange. Matsuoka teaches that a flange is perforated by a plurality of air passage holes (see Fig. 1 clearly illustrating air currents moving through the upper portion of 230. This would suggest to a worker in the art that the horizontal and vertical portions have air holes. Either the horizontal or vertical portions can be fairly characterized as a flange of the other. See also Fig. 8 and col 6, 41-43). It would have been obvious to a person of ordinary skill in the art to combine the display device of Ichimura with the teaching of air venting holes of Matsuoka for the benefit of a display device with air vents increasing the cooling ability of the device.

6. With respect to claim 2, Matsuoka teaches a display apparatus wherein the case is perforated by a plurality of air inlet holes in a rear lower portion and a plurality of air outlet holes in a rear upper portion (col 11, 8-15).

7. With respect to claim 3, Matsuoka teaches that a flange is perforated by a plurality of air passage holes (see Fig. 1 clearly illustrating air currents moving through the upper portion of 230. This would suggest to a worker in the art that the horizontal and vertical portions have air holes. Either the horizontal or vertical portions can be fairly characterized as a flange of the other. See also Fig. 8 and col 6, 41-43).

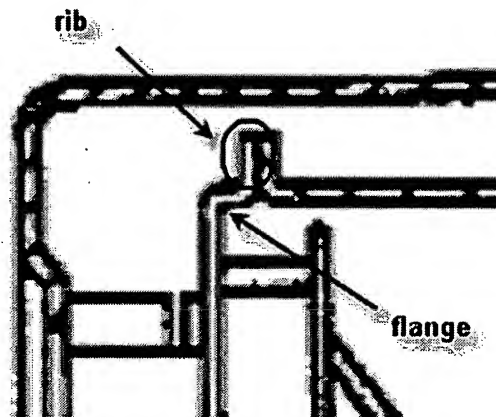
8. With respect to claim 4, Ichimura and Matsuoka lack specific teaching of the holes of the flange being rectangular in shape. A change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Therefore it would have been obvious to a person of

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ordinary skill in the art to choose rectangular shaped holes for the benefit of a larger opening ratio (see col 15, 50-52).

9. With respect to claim 5, Matsuoka teaches the hole perforating the flange being elliptical in shape (see Fig. 9 clearly showing round holes which are elliptical).

10. With respect to claims 6 and 7, Ichimura teaches wherein the chassis further comprises a reinforcing rib (the flange of 44 has an rib at it's end, see portion of Fig. 2 below indicating the rib); wherein the base and the flange of the chassis are formed as a single integrated monolithic unit (see Fig. 2, 6, the base 44 is integral with the flange).



11. With respect to claim 8, Matsuoka teaches wherein the hole perforating the flange (holes of 230) is in operational relationship with the plurality of air outlet holes (1040) perforating the case (1000, see Fig. 1, 9, col 11, 32-35).

12. With respect to claim 9, Ichimura teaches that the flange on the chassis is essentially perpendicular to the base of the chassis and extending towards said rear cover (see Fig. 2). As stated in claim 2, Matsuoka teaches that the air holes are on a rear cover of the case.

13. With respect to claim 10 as best as it can be understood, Matsuoka teaches wherein the hole in the flange (upper portions of 230) is near the air outlet holes (1040) in the rear cover (1020, see Fig. 1, 9).

14. With respect to claim 11, Matsuoka teaches wherein the display apparatus is absent a fan (see col 5 33-37).

15. With respect to claim 12, Matsuoka teaches wherein the display panel (100) is a plasma display panel (col 17, 26-29).

16. With respect to claim 13, Matsuoka teaches wherein the display apparatus further comprises flexible printed circuits (171) adapted to drive the display (see col 13, 65-7).

17. With respect to claim 14, Ichimura teaches A display apparatus, comprising; a display panel (40) displaying variable images; a chassis comprising a base (44), the base of the chassis supporting the display panel (see Fig. 2, 6, ¶ [0045]), the chassis further comprising a flange (the top edge of 44 has a flange, see portion of Fig. 2 used for claim 1 above) extending from an upper edge of the base as a single body and arranged along the upper edge of the base, the flange being adapted to prevent the base of the chassis from bending; a printed circuit board (46) with parts mounted thereon, the printed circuit board being mounted on the base of the chassis, the parts on the printed circuit board being adapted to drive the display panel (the display 40 is an output device for the computer comprising the motherboard 46); and a case housing the display panel, the chassis, and the printed circuit board (front cover 42 and back cover 50 make up a case). Ichimura lacks specific teaching of holes in the flange or cover.

the case having a rear cover, the hole on the flange being near one of said two sets of holes in said rear cover. Matsuoka teaches that a flange is perforated by a hole (see Fig. 1 clearly illustrating air currents moving through the upper portion of 230. This would suggest to a worker in the art that the horizontal and vertical portions have air holes. Either the horizontal or vertical portions can be fairly characterized as a flange of the other. See also Fig. 8 and col 6, 41-43); wherein the rear cover is perforated by two sets of holes (col 11, 8-15), the hole on the flange being near one of said two sets of holes in said rear cover (holes 1040 in the rear cover 1020 are near the flange, see Fig. 1, 8, 9). It would have been obvious to a person of ordinary skill in the art to combine the display device of Ichimura with the teaching of air venting holes of Matsuoka for the benefit of a display device with air vents increasing the cooling ability of the device.

18. With respect to claim 15, Matsuoka teaches wherein the two sets of holes (1040-1042) in the rear cover (1020) and the hole in the flange of the chassis being arranged to provide less obstruction to convection currents brought about by hot air rising from the printed circuit board and the parts thereon being heated while driving the display panel (see Fig. 1, the air currents illustrated show air flowing through the upper portion of 230 and out of the case, see also col 11, 20-35).

19. With respect to claim 16, Ichimura teaches wherein the printed circuit board (46) is on a rear side of the chassis base (44), the display (40) being on a front side of the chassis base, the flange (upper portion of 44) being on a rear side of the chassis base (see Fig. 2, 6).

20. With respect to claim 17, Matsuoka teaches wherein the display apparatus is a plasma display (col 17, 26-29).

21. With respect to claim 18, Matsuoka teaches wherein the flange is perforated by a plurality of elliptical-shaped holes along an entire length of the flange (see Fig. 8, the upper portion of 230 has many elliptical-shaped holes).

22. With respect to claim 19 and 20, Ichimura teaches wherein the chassis further comprising a reinforcing rib (the flange of 44 has an rib at it's end, see rejection of claims 6 and 7 above) attached to an end of the flange opposite the base, the reinforcing rib running along an entire length of the flange (see Fig. 2, 6).

Response to Arguments

23. Applicant's arguments filed 01/09/2006 have been fully considered but they are not persuasive. In regards to the argument concerning the location of the flange, the claims only require a flange to extend from "an upper edge". The claims utilize the transitional phrase "comprising" and therefore are open-ended and do not limit the device to only a single flange. The term "edge" can be broadly interpreted as an external surface or border; therefore the front and back planar surfaces of 221 can be fairly characterized as an edge. "Upper" relates to a direction relative a reference; since the claims do not define a reference almost all of the edges of 221 can be fairly characterized as "upper". The use of the indefinite article "an" also implies that there may be several "upper edges".

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24. In regards to the argument that Matsuoka lacks teaching of holes in the flange, the Examiner notes that: "The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain." In re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)). See MPEP 2123. Matsuoka clearly and explicitly teaches that the back 230 is formed with holes (see col 6, 41-43). Fig. 1 also clearly and explicitly teaches via airflow arrows that fan 234 causes air to flow over and under the board 20 and then out of the chassis 1000. An airflow arrow at the top of the board shows air moving from underneath the board 20 and through a flange portion of 230. This would suggest to one of ordinary skill in the art that said flange portion would necessarily have air passage holes. The Examiner's position is that Matsuoka at least implicitly teaches air passage holes in a flange portion of the back cover. See also MPEP 2112.

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jones (PN 5,796,578) teaching a base for electronics where flanges are used for strength, cooling, and radiation shielding. Sung et al. (PN 6,894,739) Ryu et al. (US Pub 2004/0036819), and Jung (PN D448,769) teaching the conventionality of air passage holes in flange of a display device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey M. Broussard whose telephone number is 571 272 2799. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Lisa Lea Edmonds
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PRIMARY EXAMINER